



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,944	04/24/2000	Rich Erikson	3COM-2640	9062

7590 10/23/2003

Wagner Murabito & Hao LLP
Third Floor
Two North Market Street
San Jose, CA 95113

EXAMINER

TRIMMINGS, JOHN P

ART UNIT	PAPER NUMBER
----------	--------------

2133

DATE MAILED: 10/23/2003

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/557,944

Applicant(s)

EREKSON ET AL.

Examiner

John P Trimmings

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/24/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claims 1-32 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1-3, 6, 11-14, 17, 21-23, 26, and 32 are rejected under 35 U.S.C. 102(a) as being fully anticipated by "Specification of the Bluetooth System" Version 1.0B, December 1, 1999, compiled by Dan Sonnerstam.

As per Claim 1:

Sonnerstam teaches the following method that is claimed and specified by the applicant; the steps of receiving data packets over a wireless channel, and indicating whether the packet was accepted or not (see page 70 of 1082, paragraph 5.3.2, and Figure 5.3), and receiving re-transmitted data if not accepted. And, the specification, on page 691 of 1082 paragraph 4.9.3, specifies that a measure of link quality shall be available for access by a user, the value of link quality to be represented by a number sufficient for determining the numbers required by the applicant's claim.

As per Claim 2:

The specification by Sonnerstam, Version 1.0B, covers the entire scope of the “Bluetooth” transceiver, including hardware, protocol, interface, and radio specifications, therefore this claim is completely taught by the referenced document.

As per Claim 3:

The specification by Sonnerstam, Version 1.0B, provides a measure of link quality to the user in the form of the “Status Parameter” GET_LINK_QUALITY, as per the document page 686, paragraph 4.9, which is available as per the referenced document. This command returns the measure of link quality to the user, which is claimed by the applicant, therefore this claim is taught by the referenced document.

As per Claim 6:

In the specification by Sonnerstam, Version 1.0B, on page 527, all paragraphs in section 1.3 teach the connection of a processor to the transceiver by means of standard interfacing. Therefore, this claim is taught by the referenced document.

As per Claim 11:

The specification by Sonnerstam, on page 686 paragraph 4.9, and page 693 paragraph 4.9.4 specifies that a measure of signal strength (RSSI) shall be available for access by a user, the value of RSSI to be represented by a number sufficient for determining the numbers required by the applicant’s claim, therefore this claim is taught by the referenced document.

As per Claim 12:

Sonnerstam teaches the following method that is claimed and specified by the applicant; the steps of transmitting data packets over a wireless channel, and receiving

a response indicating whether the packet was accepted or not (see page 70, paragraph 5.3.2, and Figure 5.4), and then retransmitting data if not accepted. And, the specification, on page 691 of 1082 paragraph 4.9.3, specifies that a measure of link quality shall be available for access by a user, the value of link quality to be represented by a number sufficient for determining the numbers required by the applicant's claim.

As per Claim 13:

The specification by Sonnerstam, Version 1.0B, covers the entire scope of the "Bluetooth" transceiver, including hardware, protocol, interface, and radio specifications, therefore this claim is completely taught by the referenced document.

As per Claim 14:

The specification by Sonnerstam, Version 1.0B, provides a measure of link quality to the user in the form of the "Status Parameter" GET_LINK_QUALITY, as per the document page 686, paragraph 4.9, which is available as per the referenced document. This command returns the measure of link quality to the user, which is claimed by the applicant, therefore this claim is taught by the referenced document.

As per Claim 17:

In the specification by Sonnerstam, Version 1.0B, on page 527, all paragraphs in section 1.3 teach the connection of a processor to the transceiver by means of standard interfacing. Therefore, this claim is taught by the referenced document.

As per Claim 21:

Sonnerstam teaches the following transceiver that is claimed and specified by the applicant; with the capability of receiving data packets over a wireless channel, and indicating whether the packet was accepted or not (see page 70 of 1082, paragraph 5.3.2, and Figure 5.3), and receiving re-transmitted data if not accepted. On page 527 of Sonnerstam, all paragraphs in section 1.3, teach the connection of a processor to the transceiver, and the specification on page 691 of 1082 paragraph 4.9.3, specifies that a measure of link quality shall be available for access by a user, the value of link quality to be represented by a number sufficient for determining the numbers required by the applicant's claim.

As per Claim 22:

The specification by Sonnerstam, Version 1.0B, covers the entire scope of the "Bluetooth" transceiver, including hardware, protocol, interface, and radio specifications, therefore this claim is completely taught by the referenced document.

As per Claim 23:

The specification by Sonnerstam, Version 1.0B, provides a measure of link quality to the user in the form of the "Status Parameter" GET_LINK_QUALITY, as per the document page 686, paragraph 4.9, which is available as per the referenced document. This command returns the measure of link quality to the user, which is claimed by the applicant, therefore this claim is taught by the referenced document.

As per Claim 26:

In the specification by Sonnerstam, Version 1.0B, on page 527, all paragraphs in section 1.3 teach the connection of a processor to the transceiver by means of standard interfacing. Therefore, this claim is taught by the referenced document.

As per Claim 32:

The specification by Sonnerstam, on page 686 paragraph 4.9, and page 693 paragraph 4.9.4 specifies that a measure of signal strength (RSSI) shall be available for access by a user, the value of RSSI to be represented by a number sufficient for determining the numbers required by the applicant's claim, therefore this claim is taught by the referenced document.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 4, 5, 7, 15, 16, 19, 24, 25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Specification of the Bluetooth System" Version 1.0B, December 1, 1999, compiled by Dan Sonnerstam, as applied to claim 1 above, and in view of Detlef et al., U.S. Patent No. 6243568.

As per Claim 4:

Where the applicant claims the indicator provided is a visual display, the teaching of Detlef et al. does so also, as described in the Detlef et al. Abstract; "...static and/or "snow" are introduced as the alert signal to give the recipient a qualitative feeling...". Therefore, a person with ordinary skill in the art at the time, with a need to provide a visual display to a Bluetooth transceiver, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 5:

Where the applicant claims the indicator provided is a audio indication, the teaching of Detlef et al. does so also, as described in the Detlef et al. Abstract; "...static is introduced as the alert signal... gives the communication recipient a qualitative feeling...". Therefore, a person with ordinary skill in the art at the time of the invention, with a need to provide an audio indicator to a Bluetooth transceiver, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 7:

Sonnerstam continues further to teach the sending of an acknowledge signal for each packet received (see Sonnerstam page 70, paragraph 5.3.2, and Figure 5.3), as is claimed by the applicant, but does not specify the counting of the acknowledge signals

Art Unit: 2133

for the purpose of measuring data integrity. However, Detlef et al., in column 11 lines 33-40 provides for a signal quality measure based on the ratio between good and bad data received. Therefore, a person with ordinary skill in the art at the time of the invention, with a need to provide a quality measure of data transmission, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 15:

Where the applicant claims the indicator provided is a visual display, the teaching of Detlef et al. does so also, as described in the Detlef et al. Abstract; "...static and/or "snow" are introduced as the alert signal to give the recipient a qualitative feeling...". Therefore, a person with ordinary skill in the art at the time, with a need to provide a visual display to a Bluetooth transceiver, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 16:

Where the applicant claims the indicator provided is a audio indication, the teaching of Detlef et al. does so also, as described in the Detlef et al. Abstract; "...static is introduced as the alert signal... gives the communication recipient a qualitative feeling...". Therefore, a person with ordinary skill in the art at the time of the invention, with a need to provide an audio indicator to a Bluetooth transceiver, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 19:

Sonnerstam continues further to teach the sending of an acknowledge signal for each packet received (see Sonnerstam page 70, paragraph 5.3.2, and Figure 5.3), as is

Art Unit: 2133

claimed by the applicant, but does not specify the counting of the acknowledge signals for the purpose of measuring data integrity. However, Detlef et al., in column 11 lines 33-40 provides for a signal quality measure based on the ratio between good and bad data received. Therefore, a person with ordinary skill in the art at the time of the invention, with a need to provide a quality measure of data transmission, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 24:

Where the applicant claims the indicator provided is a visual display, the teaching of Detlef et al. does so also, as described in the Detlef et al. Abstract; "...static and/or "snow" are introduced as the alert signal to give the recipient a qualitative feeling...". Therefore, a person with ordinary skill in the art at the time, with a need to provide a visual display to a Bluetooth transceiver, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 25:

Where the applicant claims the indicator provided is a audio indication, the teaching of Detlef et al. does so also, as described in the Detlef et al. Abstract; "...static is introduced as the alert signal... gives the communication recipient a qualitative feeling...". Therefore, a person with ordinary skill in the art at the time of the invention, with a need to provide an audio indicator to a Bluetooth transceiver, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

As per Claim 27:

Sonnerstam continues further to teach the sending of an acknowledge signal for each packet received (see Sonnerstam page 70, paragraph 5.3.2, and Figure 5.3), as is claimed by the applicant, but does not specify the counting of the acknowledge signals for the purpose of measuring data integrity. However, Detlef et al., in column 11 lines 33-40 provides for a signal quality measure based on the ratio between good and bad data received. Therefore, a person with ordinary skill in the art at the time of the invention, with a need to provide a quality measure of data transmission, would combine the teachings of Sonnerstam and Detlef et al. to completely satisfy the applicant's claim.

5. Claims 8, 20, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Specification of the Bluetooth System" Version 1.0B, December 1, 1999, compiled by Dan Sonnerstam as applied to claims 1, 12, and 21 above, and in view of Fukushima et al., U.S. Patent No. 6587985.

As per Claim 8:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as retransmission data using sequence numbers. However, in an analogous art, Fukushima, in describing the packet data transmission in column 21 lines 36-60 teaches utilization of a sequence number/transmission count storage unit which stores the retransmission counts similar to that claimed by the applicant. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Fukushima et al., and therefore, the applicant's claim is rejected.

As per Claim 20:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as retransmission data using sequence numbers. However, in an analogous art, Fukushima, in describing the packet data transmission in column 21 lines 36-60 teaches utilization of a sequence number/transmission count storage unit which stores the retransmission counts similar to that claimed by the applicant. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Fukushima et al., and therefore, the applicant's claim is rejected.

As per Claim 28:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as retransmission data using sequence numbers. However, in an analogous art, Fukushima, in describing the packet data transmission in column 21 lines 36-60 teaches utilization of a sequence number/transmission count storage unit which stores the retransmission counts similar to that claimed by the applicant. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Fukushima et al., and therefore, the applicant's claim is rejected.

6. Claims 9 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Specification of the Bluetooth System" Version 1.0B, December 1, 1999, compiled by

Dan Sonnerstam as applied to claims 1 and 21 above, and in view of Eastmond et al.,
U.S. Patent No. 6088337.

As per Claim 9:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as retransmission data using crc data. However, in an analogous art, Eastmond et al. counts and stores the number of crc errors (column 4 lines 13-25) to be used for control of transceiver antenna switching based on link quality feedback to the transceiver (see column 49 lines 16-26 and column 50 lines 1-25). A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Eastmond et al., and therefore, the applicant's claim is rejected.

As per Claim 29:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as retransmission data using crc data. However, in an analogous art, Eastmond et al. counts and stores the number of crc errors (column 4 lines 13-25) to be used for control of transceiver antenna switching based on link quality feedback to the transceiver (see column 49 lines 16-26 and column 50 lines 1-25). A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Eastmond et al., and therefore, the applicant's claim is rejected.

7. Claims 10 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Specification of the Bluetooth System" Version 1.0B, December 1, 1999, compiled by Dan Sonnerstam as applied to claims 1 and 21 above, and in view of Robert Q. Kerns, U.S. Patent No. 5956330.

As per Claim 10:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as header error check data. However, in an analogous art, Kerns counts and stores header errors (column 6 lines 47-59), which is used to determine link quality in the transceiver. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Kerns, and therefore, the applicant's claim is rejected.

As per Claim 31:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission errata such as header error check data. However, in an analogous art, Kerns counts and stores header errors (column 6 lines 47-59), which is used to determine link quality in the transceiver. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Kerns, and therefore, the applicant's claim is rejected.

8. Claims 18 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Specification of the Bluetooth System" Version 1.0B, December 1, 1999, compiled

Art Unit: 2133

by Dan Sonnerstam as applied to claim 12 above, and in view of John G. Waclawsky,
U.S. Patent No. 6449255.

As per Claim 18:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission packets such as described in the applicant's claim. However, in an analogous art, Waclawsky counts and stores a count of transmitted packets (column 7 lines 8-18), which is used to determine link quality in the transceiver. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Waclawsky, and therefore, the applicant's claim is rejected.

As per Claim 30:

Sonnerstam establishes the independent claim basis for this dependent claim, but Sonnerstam does not specify the counting of transmission packets such as described in the applicant's claim. However, in an analogous art, Waclawsky counts and stores a count of transmitted packets (column 7 lines 8-18), which is used to determine link quality in the transceiver. A person with ordinary skill in the art at the time of the invention, motivated to provide data that would reflect link quality, would combine the teachings of Sonnerstam and Waclawsky, and therefore, the applicant's claim is rejected.

Conclusion

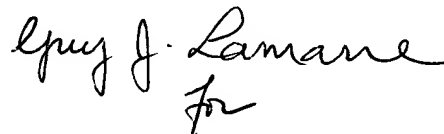
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P Trimmings whose telephone number is 703-305-0714. The examiner can normally be reached on weekdays, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-2394.

John P Trimmings
Examiner
Art Unit 2133

jpt


for
Albert DeCady
Primary Examiner